Appl. No. 09/367,459 Amdt. dated February 20, 2004 Response to Notice of Allowance November 20, 2003

## **Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

## **Listing of Claims:**

- 1-16. (canceled)
- 17. (previously presented) A method of recovering factor VIII/von Willebrand factor-complex (factor VIII/vWF-complex) comprising:
- (a) providing a protein solution comprising a factor VIII/vWF complex containing high-molecular weight vWF multimers,
- (b) binding said factor VIII/vWF-complex containing high-molecular weight vWF multimers to a cation exchanger, and
- (c) eluting said cation exchanger by a step-wise elution process to elute and recover said factor VIII/vWF-complex containing high-molecular weight vWF multimers.
- 18. (currently amended) A method as set forth in claim 17, wherein said protein solution contains a contaminating protein, said contaminating protein including a factor VIII/wVF complex containing low-molecular weight vWF multimers, factor VIII free from platelet agglutinating vWF activity, or factor VIII:C;

said binding comprising contacting said protein solution with said cation exchanger at a salt concentration of ≤250 mM, whereby said factor VIII/vWF-complex containing high-molecular weight vWF multimers and at least one of said contaminating proteins said contaminating protein become bound to said cation exchanger; and

a step in said step-wise elution process comprises eluting at least one said contaminating protein from said cation exchanger at a salt concentration of between  $\geq$ 250 mM and  $\leq$ 300 mM.

- 19. (previously presented) A method as set forth in claim 17, wherein said eluting step comprises eluting said factor VIII/vWF-complex containing high-molecular weight vWF multimers from said cation exchanger at a salt concentration of ≥300 mM.
- 20. (previously presented) A method as set forth in claim 17, wherein said eluting step comprises eluting said factor VIII/vWF-complex containing high-molecular weight vWF multimers from said cation exchanger at a salt concentration of ≥350 mM.
- 21. (previously presented) A method as set forth in claim 19, wherein said recovered factor VIII/vWF-complex is a factor VIII/vWF complex-containing fraction, free from low-molecular vWF multimers, vWF degradation products, non complexed factor VIII, and is substantially free of contaminating nucleic acids.
- 22. (previously presented) A method as set forth in claim 17, wherein said elution of said factor VIII/vWF complex containing high-molecular weight vWF multimers from said cation exchanger is carried out in a buffer system having a pH ranging between 4.5 and 8.5.
- 23. (original) A method as set forth in claim 22, wherein said pH of said buffer system is  $\geq$ 7.1 and  $\leq$ 8.5.
- 24. (original) A method as set forth in claim 17, wherein said cation exchanger is sulfopropyl-group conjugated carrier or a carboxymethyl-group conjugated carrier.
- 25. (previously presented) A method as set forth in claim 17, wherein said protein solution is selected from the group consisting of a plasma, a plasma fraction, a cryoprecipitate, a cell-free supernatant of a recombinant cell culture, an extract of a recombinant cell culture, and a protein fraction enriched in factor VIII/vWF-complex.

26-37. (canceled)

Appl. No. 09/367,459 Amdt. dated February 20, 2004 Response to Notice of Allowance November 20, 2003 **PATENT** 

- 38. (previously presented) A method as set forth in claim 18, wherein said eluting step comprises eluting said factor VIII/vWF-complex containing high-molecular weight vWF multimers at a salt concentration of ≥300 mM.
- 39. (previously presented) A method as set forth in claim 18, wherein said eluting step comprises eluting said factor VIII/vWF-complex containing high-molecular weight vWF multimers at a salt concentration of ≥350 mM.